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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/800,528	03/07/2001	Mary Rose Woodhead	C70237D1	4127

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EXAMINER

SWITZER, JULIET CAROLINE

ART UNIT

PAPER NUMBER

1634

DATE MAILED: 04/21/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/800,528

Applicant(s)

WOODHEAD ET AL.

Examiner

Juliet C. Switzer

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1634

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 December 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 March 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☒ Certified copies of the priority documents have been received in Application No. 09/068,140.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☒ Other: *See Continuation Sheet*.

Continuation of Attachment(s) 6). Other: 1449's received 3/7/01 and 12/23/02.

DETAILED ACTION

1. This action is written in response to applicant's correspondence submitted 12/18/2002. Claim 16 has been amended. Claim 16 is pending. Applicant's amendments and arguments have been thoroughly reviewed, but are not persuasive for the reasons that follow. All previous rejections are withdrawn and new rejections are set forth.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Houck *et al.* (US 4943674) in view of Graham *et al.* (Plant Cell, Tissue and Organ Culture 24:91-95, 1991).

Houck *et al.* teach that "it is frequently desirable to be able to control expression at a particular stage in the growth of the plant or in a particular plant part (Col. 1, lines 28-30)," and that in order to do this regulatory regions are required which afford the desired initiation of transcription in the appropriate cell types (Col. 1, lines 35-40). Specifically they teach that the ability to manipulate the phenotype of fruits is interest so as to provide fruit which will have improved aspects for storage, handling, cooking, etc. (Col. 1, lines 45-49). To this end, Houck *et al.* teach a method for identifying promoters differentially expressed in fruit tissue which comprises the steps of

- a) isolating mRNA from ripening fruit (Col. 6, lines 45-60);
- b) preparing a cDNA library from the isolated mRNA (Col. 6, lines 45-60);

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c) differentially screening the library from b) to identify genes expressed during the ripening period (Col. 6, line 53-Col. 7, line 6)

d) screening a genomic library with probes prepared from cDNA identified according to step c) to isolate the corresponding gene and its promoter region (Col. 8-Col. 9, Example 4). 0).

Houck *et al.* exemplify this method using tissue from a tomato, however, they do not teach a method for identifying similar promoters for effecting higher levels of transcription in blackcurrant fruits.

Graham *et al.* teach transgenic blackcurrant (*Ribes nigrum*) plants. It would have been prima facie obvious at the time the invention was made to have used the promoter isolation method taught by Houck *et al.* to isolate fruit specific genes from blackcurrant. One would have been motivated to isolate such promoters by the teachings of Houck *et al.* concerning the desirability to be able to control expression of genes in fruits in order to manipulate the phenotypes of such fruits, and the demonstration by Graham *et al.* of the successful transformation of blackcurrant. Furthermore, the ordinary practitioner would have been motivated to isolate such promoters to impart useful characteristics such as pest or disease resistance to the fruits of blackcurrant, a fruit that is grown as an agricultural fruit, as suggested by Graham *et al.* (p. 95).

Response to Remarks

Applicant's remarks are directed towards withdrawn rejections, and thus are moot in view of the new grounds of rejection. However, some of the points raised by Applicant are addressed insofar as they might apply to the instant rejection. Argues that black currants contain a high level of phenolics and polysaccharides and have high acidity, and therefore a unique

method for extracting high quality of RNA was developed for use with blackcurrants. However, this method is not claimed herein. Furthermore, it is noted that at the time the invention was made the prior art provided a wide variety of methods for isolating RNA from plant samples that have high levels of phenolics and polysaccharides (see, for example, Hong *et al.* Journal of Applied Phycology 7: 101-107, 1995; Leite *et al.* Plant Disease, September 1995, Vol. 79, No. 9, pages 917-922; Wang *et al.* Plant Molecular Biology Reporter 12(2)1994, pages 132-145; and Dutta *et al.* Journal of Chromatography, 536 (1991) 237-243). Thus, in view of the state of the prior art, an adequate expectation of success was certainly present at the time the invention was made. Absolute predictability is not required in order to establish an expectation of success. The MPEP states, "Obviousness does not require absolute predictability, however, at least some degree of predictability is required. Evidence showing there was no reasonable expectation of success may support a conclusion of nonobviousness (2143.02)." No evidence showing there was no reasonable expectation of success has been provided.

Applicant also points out that prior to the work of the instant inventors, blackcurrant was not known to be a non-climacteric fruit. However, this is a necessary property of blackcurrant fruits. The teachings of Houck *et al.* in view of Graham *et al.* provide ample teaching and motivation to complete the claimed methods, whether or not it was known that blackcurrant was in fact a non-climacteric fruit. Completing the method taught by Houck *et al.* in view of Graham *et al.* would have led to the isolation of promoters from blackcurrant fruit, and thus accomplished the goal set forth in the preamble of the claimed methods.

Conclusion

4. No claims are allowed.

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5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Juliet Einsmann Switzer whose telephone number is (703) 306-5824. The examiner can normally be reached on Monday through Friday, from 9:00 AM until 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, W. Gary Jones can be reached on (703) 308-1152. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-4242 and (703) 305-3014.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0196.



JEFFREY FREDMAN
PRIMARY EXAMINER



Juliet Einsmann Switzer
Examiner
Art Unit 1634

April 15, 2003